



CALSTEST NETWORK

AFCTN Test Report 94-015

AFCTB-ID
93-027



Technical Publication Transfer

Using:



Northrop Corporation's Data



MIL-D-28000A (IGES)

MIL-M-28001A (SGML)

MIL-R-28002A (Raster)

MIL-D-28003 (CGM)



Quick Short Test Report



26 March 1993



Prepared for
Electronic Systems Center

DTIC QUALITY INSPECTED 3

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Quick Short Test Report
26 March 1993

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1. Introduction

1.1 Background

The Department of Defense (DoD) Air Force Continuous Acquisition and Life-Cycle Support (CALS) Test Network (AFCTN) is conducting tests of the military standard for the Automated Interchange of Technical Information, MIL-STD-1840A, and its companion suite of military specifications. The AFCTN is a DoD sponsored confederation of voluntary participants from industry and government managed by the Electronic Systems Center (ESC).

The primary objective of the AFCTN is to evaluate the effectiveness of the CALS standards for technical data interchange, and to demonstrate the technical capabilities and operational suitability of those standards. Two general categories of tests are performed to evaluate the standards; formal and informal.

Formal tests are large and comprehensive, which follow a written test plan, require specific authorization from the DoD, and may take months to prepare, execute, and report.

Informal tests are quick and short, used by the AFCTN technical staff, to broaden the testing base. They include representative samples of the many systems and applications used by AFCTN participants. They also allow the AFCTN staff to gain feedback from many industry and government interpretations of the standards, to increase the base of participation in the CALS initiative, and respond to the many requests for help that come from participants. Participants take part voluntarily, benefit by receiving an evaluation of their latest implementation (interpretation) of the standards, interact with the AFCTN technical staff, gain experience using the standards, and develop increased confidence in them. The results of informal tests are reported in Quick Short Test Reports (QSTRs) that briefly summarize the standard(s) tested, the hardware and software used, the nature of the test, and the results.

1.2 Purpose

The purpose of the informal test, reported in this QSTR, was to analyze Northrop Corporation's interpretation and use of the CALS standards in transferring technical publication data. Northrop used its CALS Technical Data Interchange System to produce data, in accordance with the standards, and delivered it to the AFCTN technical staff on two 9-track magnetic tapes.

The two tapes contained the same data files. The test was to evaluate the recording speeds of their tape drives. Both tapes were read and the files were compared, to ensure the data was exactly the same, before the evaluation was started.

2. Test Parameters

Test Plan: AFCTB 93-027

Date of
Evaluation: 26 March 1993

Evaluator: George Elwood
Air Force CALS Test Bed
DET 2 HQ ESC/AV-2P
4027 Colonel Glenn Hwy
Suite 300
Dayton OH 45431-1672

Data
Originator: John Kent
Northrop Corporation
B-2 Division MS L591/GK
8900 East Washington Blvd
Pico Rivera CA 90660-3765
(310) 948-0624

Data
Description: Technical Manual Test
1 Document Declaration file
1 Document Type Definitions (DTD)
4 Initial Graphics Exchange Specification
(IGES) files
1 Text/Standard Generalized Markup Language
(SGML) file
1 Raster file
1 Computer Graphics Metafile (CGM) file

Data
Source System:

IGES

HARDWARE

Unknown

SOFTWARE

Unknown

Text/SGML	HARDWARE	Unknown
	SOFTWARE	Unknown
Raster	HARDWARE	Unknown
	SOFTWARE	Unknown
CGM	HARDWARE	Unknown
	SOFTWARE	Unknown

Evaluation Tools Used:

MIL-STD-1840A (TAPE)	SUN 3/280	AFCTN Tapetool v1.2.8 UNIX Texas Instruments (TI) Tapetool v1.0.1
MIL-D-28000 (IGES)	Sun SparcStation 2	ArborText iges2draw IGES Data Analysis (IDA) Parser/Verifier v92 IDA IGESView v3.05
MIL-M-28001 (SGML)	Cheetah Gold 486	Exoterica XGMLNormalizer v1.2e3.2 Exoterica Validator v2.0 EXL. Public Domain sgmls McAfee & McAdam Sema Mark-it v2.3
MIL-R-28002 (Raster)	SUN SparcStation 2	ArborText g42tiff AFCTN validg4 AFCTN calstb.475 IDA IGESView v3.0 Island Graphics IslandPaint v3.0

MIL-D-28003 (CGM)

SUN SparcStation 2

ArborText *cgm2draw*

Island Graphics *IslandDraw v3.0*

Cheetah Gold 486

Advance Technology Center

(ATC) *MetaView R 1.12*

ATC *MetaCheck R 2.05*

Standards

Tested:

MIL-STD-1840A

MIL-D-28000A

MIL-M-28001A

MIL-R-28002A

MIL-D-28003

3. 1840A Analysis

3.1 External Packaging

The tapes arrived at the Air Force CALS Test Bed (AFCTB) enclosed in a box in accordance with ASTM D 3951. The exterior of the box was not marked with the magnetic tape warning label, as required by MIL-STD-1840A, para. 5.3.1.3. When the commercial mailing label was removed the warning label was uncovered.

The tapes were enclosed in a barrier bag as required by MIL-STD-1840A, para. 5.3.1.2. Inspection of the tape reels showed the labels indicating the recording density, as required by MIL-STD-1840A, para. 5.3.1. Enclosed in the box was a packing list showing all files recorded on both tapes.

3.2 Transmission Envelope

The 9-track tapes received by the AFCTB contained MIL-STD-1840A files. The files were named per the standard conventions.

3.2.1 Tape Formats

The tapes were run through the AFCTB *Tapetool* v1.2.8 utility. No errors were encountered while evaluating the contents of the tape labels.

The tapes were also read using TI's *Tapetool* v1.0.1 and XSoft's *CAPS read1840A* without a reported error.

3.2.2 Declaration and Header Fields

No errors were reported in the Document Declaration file or data file headers.

The physical structure of the tapes meet the CALS MIL-STD-1840A requirements.

4. IGES Analysis

The tapes contained four IGES files. The files from the two tapes were compared and found to be alike.

The IGES files were evaluated using IDA's *Parser* and *Verifier* with CALS Class I option set. All files were reported as meeting the CALS specification. All files had reported IGES warnings. See the Appendix in this report for these warnings.

The AFCTB has several tools for viewing IGES files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

The IGES files were converted using ArborText's *iges2draw* utility with no reported errors. The resulting files were read into Island Graphics' *IslandDraw*. Nothing displayed for any of the files. The files have been provided to ArborText for evaluation.

The files were read into IDA's *IGESView*, displayed and printed. The resulting images appear to be complete.

The files were read into Carberry's *CADLeaf* with no reported errors. The displayed and printed images appear to be complete.

The IGES files meet the CALS Class I MIL-D-28000A specification.

5. SGML Analysis

The tape contained one DTD and Text file.

The AFCTB has several parsers available for evaluating submitted DTD and Text files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. These products are used

in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings unless specified in the report. Changes to DTD or Text files required by each system are not documented in the report.

The Text and DTD files from the tape were evaluated using another parser available within the AFCTB. The first pass of the DTD through the parser generated an error about an unknown external reference. The DTD referenced a Public reference set which is not in the MIL-D-28001A specification nor available in the AFCTB. See log file in the Appendix to this report. This reference was commented out and the DTD parsed without additional errors. Using this corrected DTD, the SGML Text file was parsed without a reported error.

The Text and DTD files from this document were evaluated using the Exoterica *XGMLNormalizer* parser. The first pass through the DTD generated a warning about the external Public reference set. This statement was commented out and the DTD was parsed again with one reported error. This error indicated that a content model was ambiguous. When checking the DTD this was found to be the case. On the first attempt to correct the DTD, the second "content-sentry*" reference was deleted. The DTD then parsed without a reported error.

```
<!ELEMENT toc          - - (contentsentry*,contents?,table?,contentsentry*)  >
<!ATTLIST toc          id          ID          #IMPLIED
                      texttype     NUMBER      "0210">
```

```
C:\XGML\XGMLNORM.EXE -- Error on line 466 in file entities/9327.dtd: A content
model is ambiguous. For element 'TOC'. The input is 'CONTENTSENTRY'. <!-- The
document prolog is in error. -->
```

When the Text file was parsed using the modified DTD one error was reported. This error related to the removed contentsentry in the DTD. The DTD was modified to remove the first contentsentry reference and replaced the second. The DTD parsed without a reported error. When this DTD was used five errors were reported in the Text file.

The DTD was parsed using the Exoterica Validator parser. This parser permits both the DTD and instance to be placed together. The unknown external reference was removed before this procedure. The first pass generated two errors and four warnings. The second pass generated two errors and five warnings. The only difference between these two passes was the location of the contentsentry reference.

The Text and DTD files from the tape were evaluated using McAfee & McAdam's *Sema Mark-it* parser. The DTD used for this operation had the unknown external reference commented out. This parser also reported the ambiguous content model.

The Text and DTD files from the tape were evaluated using the Public Domain *sgmls* parser. The unknown external reference was commented out. This program also reported the ambiguous content model. This program also reports the graphic entities which are not errors.

The DTD and Text files do not meet the CALS MIL-M-28001A specification, due to the use of an unknown external reference set and the ambiguous content model used.

6. Raster Analysis

The tapes contained one Raster file. The file was evaluated using the AFCTN *validg4* utility which reported the file as valid.

The file was read into the AFCTN *calstb.475*. The image appeared to be scanned in straight but some orphan pixels were noted.

The AFCTB has several tools for viewing Raster files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

The file was read into Carberry's *CADLeaf* software without a reported error. The displayed and printed image appears to be complete.

The file was read into IDA's *IGESView* software without a reported error. The displayed and printed image appears to be complete.

The Raster file meets the CALS MIL-R-28002A specification.

7. CGM Analysis

The tape contained one CGM file. This file was evaluated using ATC's *MetaCheck* software with CALS options. This software reported the file as meeting the CALS specification.

The AFCTB has several tools for viewing CGM files. These tools are not used to generate a pass/fail but to report how commercially available software can handle the files. Many of these products are used in the development of technical publications and are good indicators of usability. The use of these products is not an endorsement nor an indication of CALS capability. All operations were performed using the default settings.

The CGM file was converted using ArborText's *cgm2draw* utility without a reported error. The resulting file was read into Island Graphics' *IslandDraw* where it was displayed and printed. The image appeared to be complete.

The file was read into Carberry's *CADLeaf* without a reported error. The file displayed and printed without a problem and appears to be complete.

The CGM file meets the CALS MIL-D-28003 specification.

8. Conclusions and Recommendations

In summary, the tapes from Northrop Corporation were correct. They could be read properly using the AFCTN *Tapetool* and other *Tapetool* utilities without a reported error. The physical structure of the tapes meets the CALS MIL-STD-1840A requirements.

The IGES files meet the CALS MIL-D-28000A specification.

The DTD and Text files do not meet the CALS MIL-M-28001A specification, because of the use of an unknown external reference set and the ambiguous content model in the DTD.

The Raster file meets the CALS MIL-R-28002A specification.

The CGM file meets the CALS MIL-D-28003 specification.

Because of the errors in the DTD and Text files, this tape does not meet the CALS MIL-STD-1840A requirements.

9. Appendix A - Tapetool Report Logs

9.1 Tape Catalog

Air Force CALS Test Network Catalog Evaluation - Version 1.2; Release Number 8

Standards referenced:

MIL-STD-1840A (1987) - Automated Interchange of Technical Information

ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes
for Information Interchange

ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Fri Mar 26 12:01:49 1993

MIL-STD-1840A File Catalog

File Set Directory: /cals/tapetool8/Set077

Page: 1

File Name	File Type	Record Format/ Length	Block Length/Total	Selected/ Extracted
D001	Document Declaration	D/00260	02048/000001	Extracted
D001T001	Text	D/00260	02048/000009	Extracted
D001G002	DTD	D/00260	02048/000010	Extracted
D001H003	Output Specification	D/00260	02048/000051	Extracted
D001Q004	IGES	F/00080	02000/000281	Extracted
D001Q005	IGES	F/00080	02000/000138	Extracted
D001Q006	IGES	F/00080	02000/000224	Extracted
D001Q007	IGES	F/00080	02000/000224	Extracted
D001C008	CGM	F/00080	00800/000062	Extracted
D001R009	Raster	F/00128	02048/000017	Extracted

Catalog Process terminated normally.

9.2 Tape Evaluation Log

Air Force CALS Test Network Tape Evaluation - Version 1.2; Release Number 8
Standards referenced:

ANSI X3.27 (1987) - File Structure and labeling of Magnetic Tapes
for Information Interchange

ANSI X3.4 (1986) - Coded Character Sets - 7 Bit ASCII

Fri Mar 26 12:00:59 1993

ANSI Tape Import Log

Allocating tape drive /dev/rmt0...

/dev/rmt0 allocated.

VOL1ITDS01

CONTROLLER

4

Label Identifier: VOL1

Volume Identifier: ITDS01

Volume Accessibility:

Owner Identifier:

Label Standard Version: 4

HDR1D001

ITDS0100010001000100 93073 93073 000000 CONTROLLER

Label Identifier: HDR1

File Identifier: D001

File Set Identifier: ITDS01

File Section Number: 0001

File Sequence Number: 0001

Generation Number: 0001

Generation Version Number: 00

Creation Date: 93073

Expiration Date: 93073

File Accessibility:

Block Count: 000000

Implementation Identifier: CONTROLLER

HDR2D0204800260

00

Label Identifier: HDR2

Recording Format: D

Block Length: 02048

Record Length: 00260

Offset Length: 00

Implementation Identifier: CONTROLLER

HDR2F0204800128

00

Label Identifier: HDR2
Recording Format: F
Block Length: 02048
Record Length: 00128
Offset Length: 00

***** Tape Mark *****

Actual Block Size Found = 2048 Bytes.

Number of data blocks read = 17.

***** Tape Mark *****

EOF1D001R009 ITDS0100010010000100 93073 93073 000017 CONTROLLER

Label Identifier: EOF1
File Identifier: D001R009
File Set Identifier: ITDS01
File Section Number: 0001
File Sequence Number: 0010
Generation Number: 0001
Generation Version Number: 00
Creation Date: 93073
Expiration Date: 93073
File Accessibility:
Block Count: 000017
Implementation Identifier: CONTROLLER

EOF2F0204800128

00

Label Identifier: EOF2
Recording Format: F
Block Length: 02048
Record Length: 00128
Offset Length: 00

***** Tape Mark *****

***** Tape Mark *****

End of Volume ITDS01

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End Of Tape File Set

Tape Import Process terminated with 0 error(s), 0 warning(s),
and 0 note(s).

9.3 Tape File Set Validation Log

Air Force CALS Test Network File Set Evaluation - Version 1.2; Release Number 8
Standards referenced:

MIL-STD-1840A (1987) - Automated Interchange of Technical Information

Fri Mar 26 12:01:49 1993

MIL-STD-1840A File Set Evaluation Log

File Set: Set077

Found file: D001

Extracting Document Declaration Header Records...

Evaluating Document Declaration Header Records...

srcsys: John P. Kent, ITDS Chief Engineer, Northrop Corporation, B-2 Division, L591/GK
E. Washington Blvd., Pico Rivera, CA 90660-3765 (310) 948-0624

srcdocid: 1B-2A-2-21JG-10-1

srcrelid: NONE

chglvl: ORIGINAL

dteisu: 19910301

dstsys: Jeff Fisher, Integration Manager, USAF CALS Test Bed, HQ AFMC (I)/ENCT, Techno
4027 Col. Glenn Highway, Dayton, OH 45431-1601

dstdocid: 1B-2A-2-21JG-10-1

dstrelid: NONE

dtetrm: 19930314

dlvacc: NONE

filcnt: T1, H1, G1, C1, Q4, R1

ttlcls: UNCLASSIFIED

doccls: UNCLASSIFIED

doctyp: JOB GUIDE

doctl: ENVIRONMENTAL CONTROL - ECS CONTROL

Found file: D001T001

Extracting Text Header Records...

Evaluating Text Header Records...

srcdocid: 1B-2A-2-21JG-10-1

dstdocid: 1B-2A-2-21JG-10-1

txtfilid: W

doccls: UNCLASSIFIED

notes: NONE

Saving Text Header File: D001T001_HDR

Saving Text Data File: D001T001_TXT

Found file: D001G002
Extracting DTD Header Records...
Evaluating DTD Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
notes: NONE

Saving DTD Header File: D001G002_HDR
Saving DTD Data File: D001G002_DTD

Found file: D001H003
Extracting Output Specification Header Records...
Evaluating Output Specification Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
notes: NONE

Saving Output Specification Header File: D001H003_HDR
Saving Output Specification Data File: D001H003_OS

Found file: D001Q004
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2111-0101A
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D001Q004_HDR
Saving IGES Data File: D001Q004_IGS

Found file: D001Q005
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2112-0101A

doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D001Q005_HDR
Saving IGES Data File: D001Q005_IGS

Found file: D001Q006
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2112-0109C
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D001Q006_HDR
Saving IGES Data File: D001Q006_IGS

Found file: D001Q007
Extracting IGES Header Records...
Evaluating IGES Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2112-0110B
doccls: UNCLASSIFIED
notes: NONE

Saving IGES Header File: D001Q007_HDR
Saving IGES Data File: D001Q007_IGS

Found file: D001C008
Extracting CGM Header Records...
Evaluating CGM Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2111-0103D
doccls: UNCLASSIFIED
notes: NONE

Saving CGM Header File: D001C008_HDR
Saving CGM Data File: D001C008_CGM

Found file: D001R009
Extracting Raster Header Records...
Evaluating Raster Header Records...

srcdocid: 1B-2A-2-21JG-10-1
dstdocid: 1B-2A-2-21JG-10-1
txtfilid: W
figid: NONE
srcgph: B2AJG2111-0104D
doccls: UNCLASSIFIED
rtype: 1
rorient: 000,270
rpelcnt: 003408,004408
rdensty: 0400
notes: NONE

Saving Raster Header File: D001R009_HDR
Saving Raster Data File: D001R009_GR4

Evaluating numbering scheme...
No errors were encountered during numbering scheme evaluation.
Numbering scheme evaluation complete.

Checking file count...
No errors were encountered during file count verification.
File Count verification complete.

No errors were encountered in Document D001.

No errors were encountered in this File Set.

MIL-STD-1840A File Set Evaluation Complete.

10. Appendix B - Detailed IGES Analysis

10.1 File D001Q004

10.1.1 Parser/Verifier Log

```
*** IGES DATA FILE ANALYSIS ***
***      MARCH 1992      ***
***  IGES Data Analysis  ***
***    (708) 449-3430    ***
```

Input file is /novell/9327/D001Q004_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 26, 1993 1:28 PM

*** File and Product Name Information ***

```
File name from sender      = '0101A.gef.igs'
File creation Date.Time    = '930218.130008'
Model change Date.Time     = ''
Author                     = 'NORTHROP B2 ITDS CTB'
Department                  = ''
Product name from sender   = '0101A.gef.igs'
Destination product name   = '0101A.gef.igs'
```

*** Parameter Delimiters ***

```
Delimiter = ','
Terminator = ';'

```

*** Originating System Data ***

```
System ID          = 'ITDS CONVERTER: GEF_IGES'
Preprocessor version = '1.0'
Specification version = 6 (IGES 4.0)
```

*** Precision levels ***

```
Integer bits = 32
Floating point - Exponent = 38  Mantissa = 6
Double precision - Exponent = 308  Mantissa = 15
```

*** Global Model Data ***

Model scale = 1.0000E+00
Unit flag = 1
Units = 'IN'
Line weights = 1
Maximum line thickness = 6.300000E-03
Minimum line thickness = 6.300000E-03
CAUTION 2317: Maximum line thickness equal to minimum thickness.
Granularity = 1.000000E-03
Maximum coordinate = 7.243750E+00

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status:	Visible	1850
	Blanked	0
Independence:	Independent	1838
	Physically Subordinate	8
	Logically Subordinate	4
	Totally Subordinate	0
Entity use:	Geometry	1831
	Annotation	19
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	1850
	Hierarchy property applies	0
	Not Specified	0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
-----	----	-----	-----	-----
104	1	0	659	Conic arc - ellipse
106	63	0	8	Simple closed planar curve
110	0	0	497	Line
112	0	0	5	Parametric spline curve
124	0	0	659	Transformation matrix
212	0	0	9	General note

230	0	0	8	Sectioned area (Standard Crosshatching)
404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
406	18	0	2	Property - Intercharacter spacing
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	1850

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 1850

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
-	-	166	8	-	42	4	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	493	-	-	455	1	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

116	118	120	122	124	125	126	128	
-	-	-	-	659	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted

- - - - - User defined

*** Line Widths Used in Data ***

Weight	Count	Width
Defaulted	1850	(0.0063)

*** Colors Used in Data ***

Defaulted	1784
Black	57
White	9

***** ENTITY ANALYSIS *****

*** Entity type: 104

WARNING 2265: Start point off conic by 1.190300E-03 at D 539.
WARNING 2265: Start point off conic by 1.234213E-03 at D 595.
WARNING 2265: Start point off conic by 1.388423E-03 at D 743.
WARNING 2039: End point off conic by 1.388423E-03 at D 743.
WARNING 2265: Messages regarding invalid start point suppressed.
WARNING 2039: Messages regarding conic end points suppressed.

*** Entity type: 106

*** Entity type: 110

-- 497 lines averaging 2.015512E-01 units --

*** Entity type: 112

*** Entity type: 124

659 transformation matrices, 659 non-zero translations.
NOTE 2341: 659 matrices contain translation information.

*** Entity type: 212

9 Text strings in data file.
Average Text aspect ratio in file is 0.9883842.
Minimum Text aspect ratio in file is 0.9821430.
Maximum Text aspect ratio in file is 0.9910715.

FONTS USED IN FILE

FONT	COUNT	NAME
------	-------	------

1	9	Default ASCII Style
---	---	---------------------

*** Entity type: 230

*** Entity type: 404

Drawing at D 5 contains 1 views.

Drawing at D 5 contains 0 annotation entities.

*** Entity type: 406

*** Entity type: 410

Scale of view at D 1 is 1.000000E+00.

Orthographic View entity at D 1 has 0 clipping planes specified.

XMIN = Not Set XMAX = Not Set

YMIN = Not Set YMAX = Not Set

ZMIN = Not Set ZMAX = Not Set

*** Message Summary ***

2015: 98 Mathematically incorrect definitions.

2018: 1 Problems with line weight/width display information.

*** Error Summary ***

0 fatal errors

0 severe errors

0 errors

98 warnings

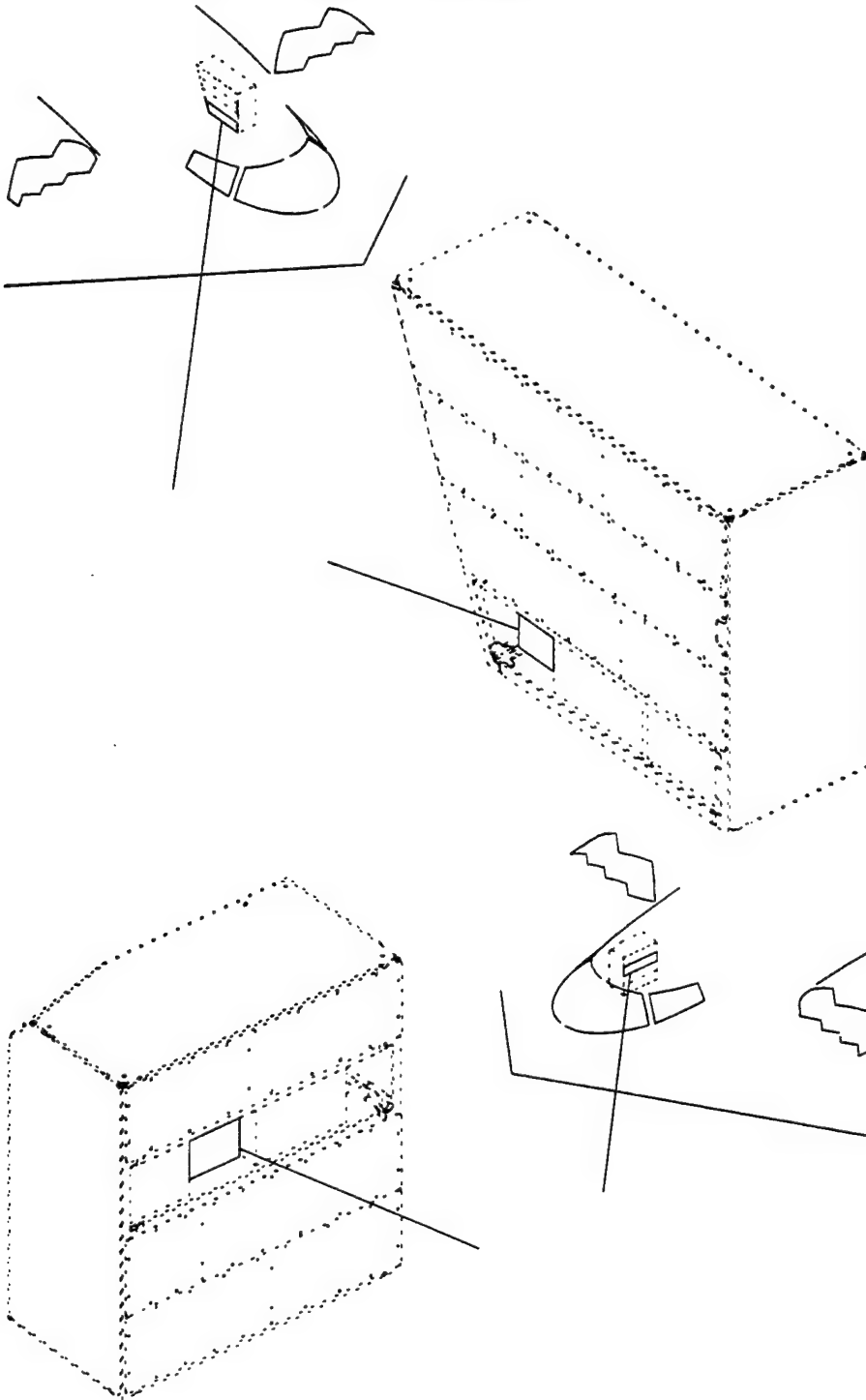
1 cautions

0 nitpicks

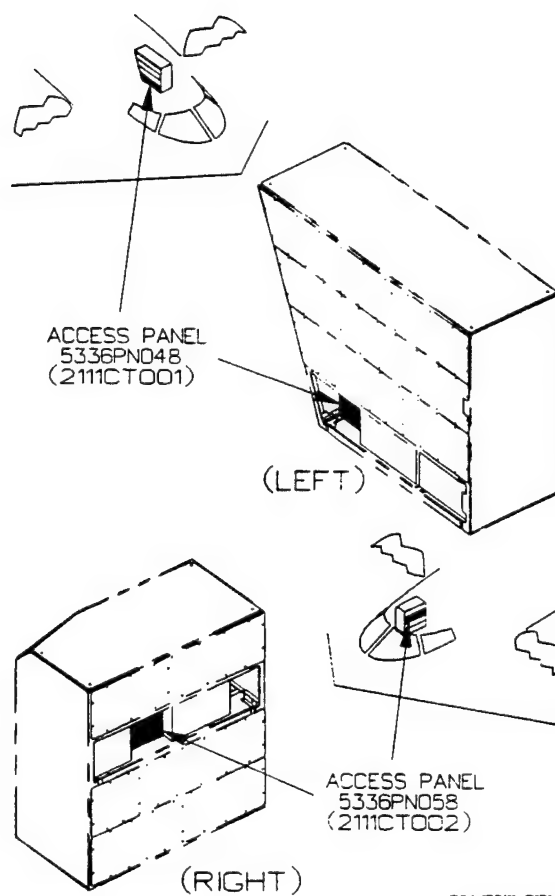
1 notes

*** End of Analysis of /novell/9327/D001Q004_IGS ***

10.1.2 Output Cadleaf



10.1.3 Output IGESView



10.2 File D001Q005

10.2.1 Parser/Verifier Log

```
*** IGES DATA FILE ANALYSIS ***  
***      MARCH 1992      ***  
***   IGES Data Analysis   ***  
***   (708) 449-3430      ***
```

Input file is /novell/9327/D001Q005_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 26, 1993 1:28 PM

*** File and Product Name Information ***

```
File name from sender      = '0101A.gef.igs'  
File creation Date.Time    = '930218.130511'  
Model change Date.Time    = ''  
Author                     = 'NORTHROP B2 ITDS CTB'  
Department                 = ''  
Product name from sender   = '0101A.gef.igs'  
Destination product name   = '0101A.gef.igs'
```

*** Parameter Delimiters ***

```
Delimiter = ','  
Terminator = ';' 
```

*** Originating System Data ***

```
System ID          = 'ITDS CONVERTER: GEF_IGES'  
Preprocessor version = '1.0'  
Specification version = 6 (IGES 4.0)
```

*** Precision levels ***

```
Integer bits =      32  
Floating point - Exponent =      38  Mantissa =      6  
Double precision - Exponent =     308  Mantissa =     15
```

*** Global Model Data ***

```
Model scale          = 1.0000E+00
```

Unit flag = 1
Units = 'IN'
Line weights = 1
Maximum line thickness = 3.937490E-03
Minimum line thickness = 3.937490E-03

CAUTION 2317: Maximum line thickness equal to minimum thickness.

Granularity = 1.000000E-03
Maximum coordinate = 4.168750E+00

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status:	Visible	834
	Blanked	0
Independence:	Independent	830
	Physically Subordinate	1
	Logically Subordinate	3
	Totally Subordinate	0
Entity use:	Geometry	830
	Annotation	4
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	834
	Hierarchy property applies	0
	Not Specified	0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
-----	----	-----	-----	-----
100	0	0	1	Circular arc
104	1	0	108	Conic arc - ellipse
106	63	0	1	Simple closed planar curve
110	0	0	421	Line
112	0	0	189	Parametric spline curve
124	0	0	108	Transformation matrix

212	0	0	1	General note
230	0	0	1	Sectioned area (Standard Crosshatching)
404	0	0	1	Drawing
406	16	0	1	Property - Drawing size
406	18	0	1	Property - Intercharacter spacing
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	834

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 834

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
1	-	108	1	-	415	189	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	1	-	-	Phantom
-	-	-	-	-	5	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined
116	118	120	122	124	125	126	128	
-	-	-	-	108	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined
130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line

-	-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	-	User defined

*** Line Widths Used in Data ***

Weight	Count	Width
Defaulted	834	(0.0039)

*** Colors Used in Data ***

Defaulted	118
Black	715
White	1

***** ENTITY ANALYSIS *****

*** Entity type: 100

*** Entity type: 104

WARNING 2265: Start point off conic by 1.336260E-03 at D 969.
WARNING 2039: End point off conic by 1.336260E-03 at D 969.
WARNING 2265: Start point off conic by 1.804375E-03 at D 973.
WARNING 2039: End point off conic by 1.804375E-03 at D 973.
WARNING 2265: Start point off conic by 1.328401E-03 at D 1173.
WARNING 2265: Start point off conic by 4.571146E-03 at D 1285.
WARNING 2039: End point off conic by 4.571146E-03 at D 1285.

*** Entity type: 106

*** Entity type: 110

-- 421 lines averaging 1.199761E-01 units --

*** Entity type: 112

WARNING 2238: Polynomial segment (4) at D 1343 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1487 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1513 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1537 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1541 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1645 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1647 is degenerate.

*** Entity type: 124

108 transformation matrices, 108 non-zero translations.
NOTE 2341: 108 matrices contain translation information.

*** Entity type: 212

1 Text strings in data file.
Average Text aspect ratio in file is 0.9873866.
Minimum Text aspect ratio in file is 0.9873866.
Maximum Text aspect ratio in file is 0.9873866.

FONTs USED IN FILE

FONT	COUNT	NAME
1	1	Default ASCII Style

*** Entity type: 230

*** Entity type: 404

Drawing at D 5 contains 1 views.

Drawing at D 5 contains 0 annotation entities.

*** Entity type: 406

*** Entity type: 410

Scale of view at D 1 is 1.000000E+00.

Orthographic View entity at D 1 has 0 clipping planes specified.

XMIN = Not Set	XMAX = Not Set
YMIN = Not Set	YMAX = Not Set
ZMIN = Not Set	ZMAX = Not Set

*** Message Summary ***

2015: 14 Mathematically incorrect definitions.

2018: 1 Problems with line weight/width display information.

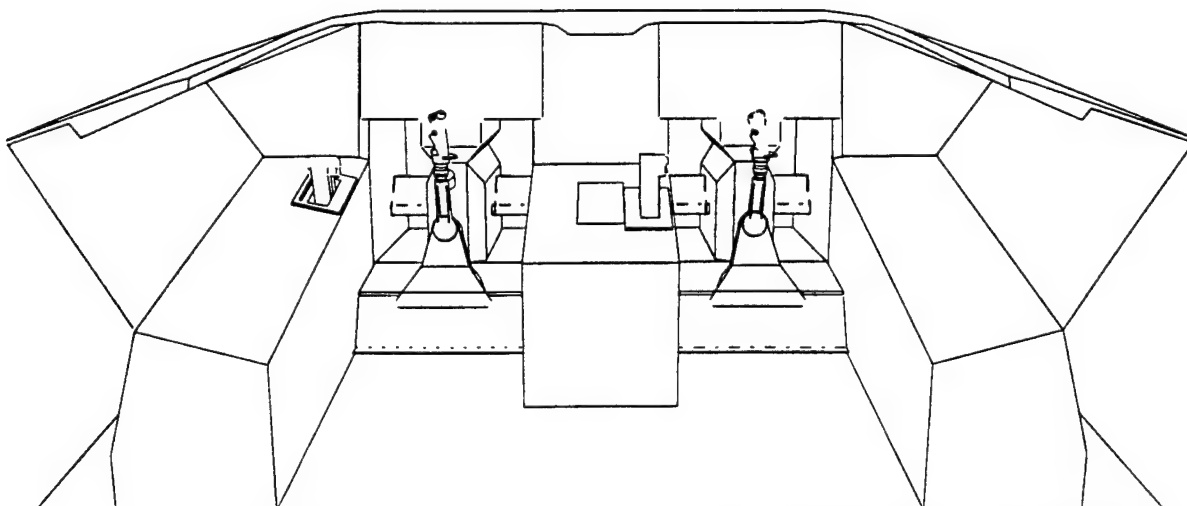
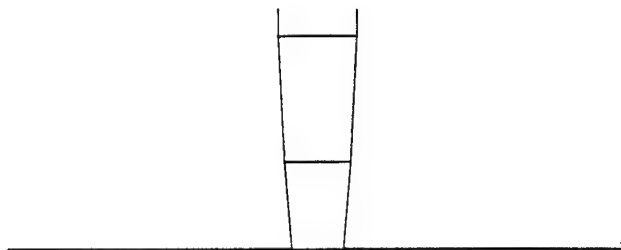
*** Error Summary ***

0 fatal errors

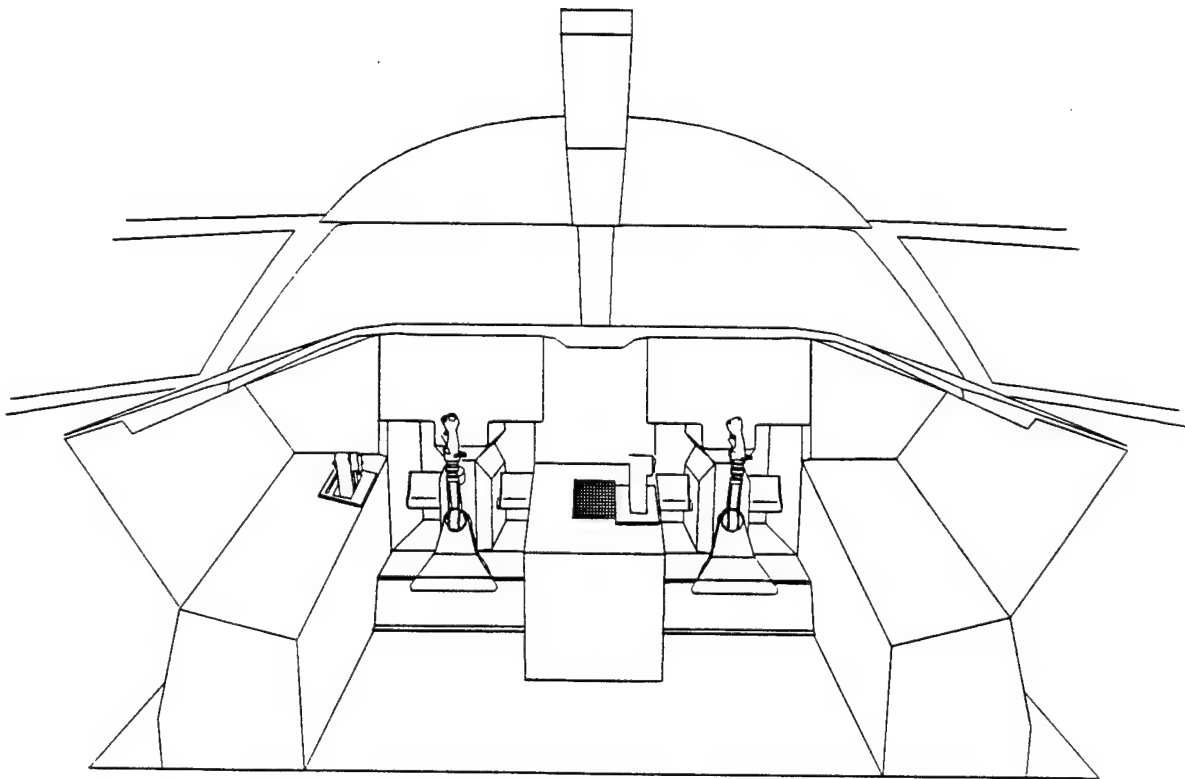
0 severe errors
0 errors
14 warnings
1 cautions
0 nitpicks
1 notes

*** End of Analysis of /novell/9327/D001Q005_IGS ***

10.2.2 Output Cadleaf



10.2.3 Output IGESView



R2A IG2112-0101A

10.3 File D001Q006

10.3.1 Parser/Verifier Log

```
*** IGES DATA FILE ANALYSIS ***  
***      MARCH 1992      ***  
***   IGES Data Analysis   ***  
***   (708) 449-3430      ***
```

Input file is /novell/9327/D001Q006_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 26, 1993 1:29 PM

*** File and Product Name Information ***

```
File name from sender      = '0109C.gef.igs'  
File creation Date.Time    = '930218.130525'  
Model change Date.Time     = ''  
Author                     = 'NORTHROP B2 ITDS CTB'  
Department                 = ''  
Product name from sender   = '0109C.gef.igs'  
Destination product name   = '0109C.gef.igs'
```

*** Parameter Delimiters ***

```
Delimiter  = ','  
Terminator = ';'
```

*** Originating System Data ***

```
System ID           = 'ITDS CONVERTER: GEF_IGES'  
Preprocessor version = '1.0'  
Specification version = 6 (IGES 4.0)
```

*** Precision levels ***

```
Integer bits = 32  
Floating point - Exponent = 38  Mantissa = 6  
Double precision - Exponent = 308  Mantissa = 15
```

*** Global Model Data ***

```
Model scale          = 1.0000E+00  
Unit flag            = 1
```

Units = 'IN'
 Line weights = 1
 Maximum line thickness = 6.300000E-03
 Minimum line thickness = 6.300000E-03
 CAUTION 2317: Maximum line thickness equal to minimum thickness.
 Granularity = 1.000000E-03
 Maximum coordinate = 7.243750E+00

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status:	Visible	1432
	Blanked	0
Independence:	Independent	1422
	Physically Subordinate	6
	Logically Subordinate	4
	Totally Subordinate	0
Entity use:	Geometry	1417
	Annotation	15
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	1432
	Hierarchy property applies	0
	Not Specified	0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
-----	----	-----	-----	-----
100	0	0	11	Circular arc
104	1	0	266	Conic arc - ellipse
106	63	0	6	Simple closed planar curve
110	0	0	676	Line
112	0	0	189	Parametric spline curve
124	0	0	266	Transformation matrix
212	0	0	7	General note
230	0	0	6	Sectioned area (Standard Crosshatching)
404	0	0	1	Drawing

406	16	0	1	Property - Drawing size
406	18	0	2	Property - Intercharacter spacing
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	1432

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 1432

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
11	-	252	6	-	600	189	-	Solid
-	-	1	-	-	19	-	-	Dashed
-	-	13	-	-	50	-	-	Phantom
-	-	-	-	-	7	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined
116	118	120	122	124	125	126	128	
-	-	-	-	266	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined
130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

*** Line Widths Used in Data ***

Weight	Count	Width
Defaulted	1432	(0.0063)

*** Colors Used in Data ***

Defaulted	647
Black	778
White	7

***** ENTITY ANALYSIS *****

*** Entity type: 100

*** Entity type: 104

WARNING 2265: Start point off conic by 4.023317E-03 at D 953. WARNING 2039: End poi
conic by 4.023317E-03 at D 953. WARNING 2265: Messages regarding invalid start poin
suppressed.

WARNING 2039: Messages regarding conic end points suppressed.

*** Entity type: 106

*** Entity type: 110

-- 676 lines averaging 1.383460E-01 units --

*** Entity type: 112

WARNING 2238: Polynomial segment (0) at D 1345 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1423 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1561 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1563 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1645 is degenerate.

*** Entity type: 124

266 transformation matrices, 266 non-zero translations.

NOTE 2341: 266 matrices contain translation information.

*** Entity type: 212

7 Text strings in data file.

Average Text aspect ratio in file is 0.9608803.
Minimum Text aspect ratio in file is 0.8928572.
Maximum Text aspect ratio in file is 0.9923470.

FONTS USED IN FILE

FONT	COUNT	NAME
1	7	Default ASCII Style

*** Entity type: 230

*** Entity type: 404

Drawing at D 5 contains 1 views.
Drawing at D 5 contains 0 annotation entities.

*** Entity type: 406

*** Entity type: 410

Scale of view at D 1 is 1.000000E+00.
Orthographic View entity at D 1 has 0 clipping planes specified.
XMIN = Not Set XMAX = Not Set
YMIN = Not Set YMAX = Not Set
ZMIN = Not Set ZMAX = Not Set

*** Message Summary ***

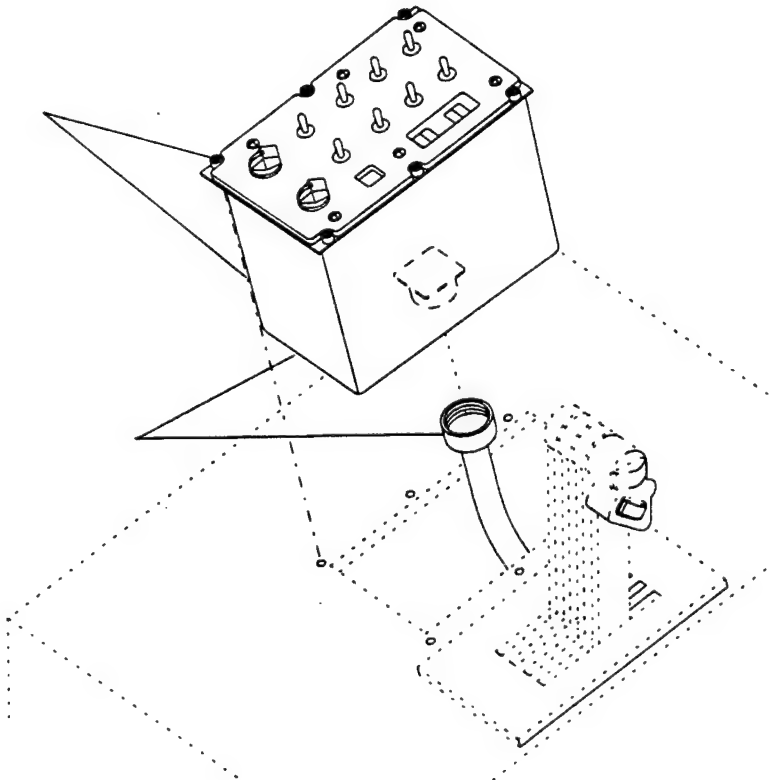
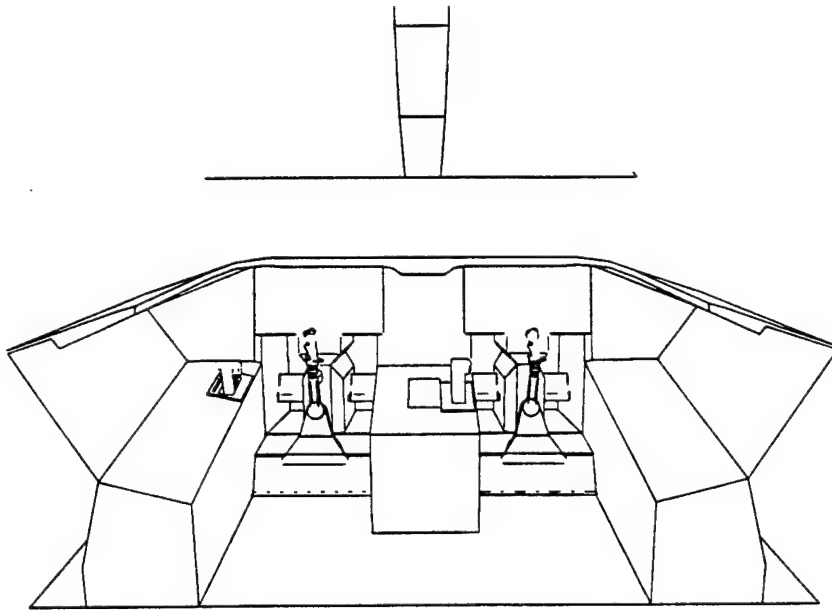
2015: 39 Mathematically incorrect definitions.
2018: 1 Problems with line weight/width display information.

*** Error Summary ***

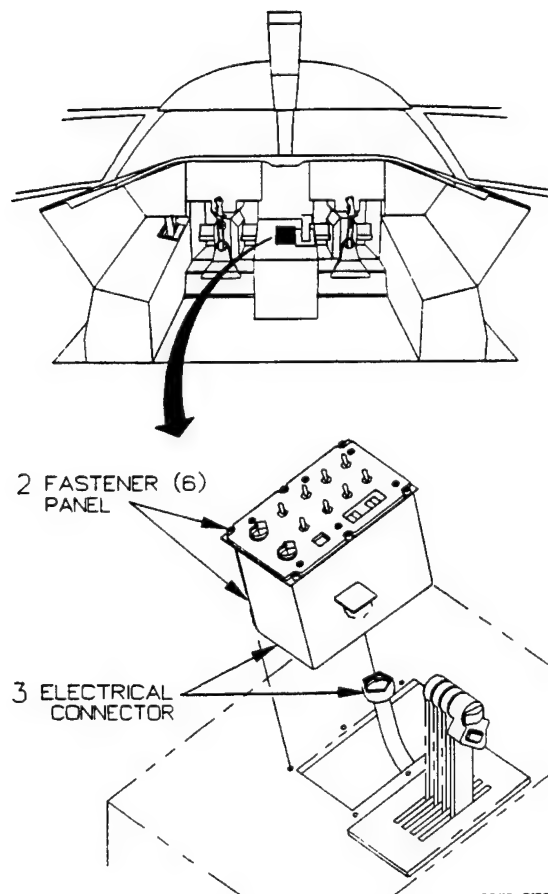
0 fatal errors
0 severe errors
0 errors
39 warnings
1 cautions
0 nitpicks
1 notes

*** End of Analysis of /novell/9327/D001Q006_IGS ***

10.3.2 Output Cadleaf



10.3.3 Output IGESView



10.4 File D001Q007

10.4.1 Parser/Verifier Log

```
*** IGES DATA FILE ANALYSIS ***  
***      MARCH 1992      ***  
***  IGES Data Analysis  ***  
***    (708) 449-3430    ***
```

Input file is /novell/9327/D001Q007_IGS

Checking conformance to CALS Class I (MIL-D-28000A 2/10/92)

Today is March 26, 1993 1:29 PM

*** File and Product Name Information ***

```
File name from sender      = '0110B.gef.igs'  
File creation Date.Time    = '930218.130543'  
Model change Date.Time     = ''  
Author                     = 'NORTHROP B2 ITDS CTB'  
Department                  = ''  
Product name from sender   = '0110B.gef.igs'  
Destination product name   = '0110B.gef.igs'
```

*** Parameter Delimiters ***

```
Delimiter  = ','  
Terminator = ';' 
```

*** Originating System Data ***

```
System ID           = 'ITDS CONVERTER: GEF_IGES'  
Preprocessor version = '1.0'  
Specification version = 6 (IGES 4.0)
```

*** Precision levels ***

```
Integer bits =      32  
Floating point - Exponent =      38  Mantissa =      6  
Double precision - Exponent =     308  Mantissa =     15
```

*** Global Model Data ***

```
Model scale          = 1.0000E+00  
Unit flag            = 1
```

Units = 'IN'
 Line weights = 1
 Maximum line thickness = 6.300000E-03
 Minimum line thickness = 6.300000E-03
 CAUTION 2317: Maximum line thickness equal to minimum thickness.
 Granularity = 1.000000E-03
 Maximum coordinate = 7.243750E+00

Drafting standard applicable to original data is not specified.

*** Status Flag Summary ***

Blank status:	Visible	1433
	Blanked	0
Independence:	Independent	1423
	Physically Subordinate	6
	Logically Subordinate	4
	Totally Subordinate	0
Entity use:	Geometry	1417
	Annotation	16
	Definition	0
	Other	0
	Logical/Positional	0
	2D parametric	0
	Not Specified	0
Hierarchy:	Structure DE applies	0
	Subordinate DE applies	1433
	Hierarchy property applies	0
	Not Specified	0

*** Entity Occurrence Counts ***

Entity	Form	Level	Count	Type
-----	----	-----	-----	-----
100	0	0	11	Circular arc
104	1	0	266	Conic arc - ellipse
106	63	0	6	Simple closed planar curve
110	0	0	676	Line
112	0	0	189	Parametric spline curve
124	0	0	266	Transformation matrix
212	0	0	8	General note
230	0	0	6	Sectioned area (Standard Crosshatching)
404	0	0	1	Drawing

406	16	0	1	Property - Drawing size
406	18	0	2	Property - Intercharacter spacing
410	0	0	1	View - Orthographic parallel

*** Entity Count by Level ***

Level	Count
0	1433

*** Labeling Information ***

0% of the entities are labeled.

Unlabeled 1433

*** Line Fonts Used in Data ***

100	102	104	106	108	110	112	114	
-	-	-	-	-	-	-	-	Undefined
11	-	252	6	-	600	189	-	Solid
-	-	1	-	-	19	-	-	Dashed
-	-	13	-	-	50	-	-	Phantom
-	-	-	-	-	7	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined
116	118	120	122	124	125	126	128	
-	-	-	-	266	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined
130	132	134	136	138	140	142	144	
-	-	-	-	-	-	-	-	Undefined
-	-	-	-	-	-	-	-	Solid
-	-	-	-	-	-	-	-	Dashed
-	-	-	-	-	-	-	-	Phantom
-	-	-	-	-	-	-	-	Center-line
-	-	-	-	-	-	-	-	Dotted
-	-	-	-	-	-	-	-	User defined

*** Line Widths Used in Data ***

Weight	Count	Width
Defaulted	1433	(0.0063)

*** Colors Used in Data ***

Defaulted	647
Black	778
White	8

***** ENTITY ANALYSIS *****

*** Entity type: 100

*** Entity type: 104

WARNING 2265: Start point off conic by 4.023317E-03 at D 955.
WARNING 2039: End point off conic by 4.023317E-03 at D 955.
WARNING 2265: Messages regarding invalid start point suppressed.
WARNING 2039: Messages regarding conic end points suppressed.

*** Entity type: 106

*** Entity type: 110

-- 676 lines averaging 1.380248E-01 units --

*** Entity type: 112

WARNING 2238: Polynomial segment (0) at D 1351 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1421 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1467 is degenerate.
WARNING 2238: Polynomial segment (1) at D 1567 is degenerate.
WARNING 2238: Polynomial segment (0) at D 1627 is degenerate.

*** Entity type: 124

266 transformation matrices, 266 non-zero translations.
NOTE 2341: 266 matrices contain translation information.

*** Entity type: 212

8 Text strings in data file.

Average Text aspect ratio in file is 0.9635382.
Minimum Text aspect ratio in file is 0.8928572.
Maximum Text aspect ratio in file is 0.9923470.

FONTS USED IN FILE

FONT	COUNT	NAME
1	8	Default ASCII Style

*** Entity type: 230

*** Entity type: 404

Drawing at D 5 contains 1 views.

Drawing at D 5 contains 0 annotation entities.

*** Entity type: 406

*** Entity type: 410

Scale of view at D 1 is 1.000000E+00.

Orthographic View entity at D 1 has 0 clipping planes specified.

XMIN = Not Set	XMAX = Not Set
YMIN = Not Set	YMAX = Not Set
ZMIN = Not Set	ZMAX = Not Set

*** Message Summary ***

2015: 39 Mathematically incorrect definitions.

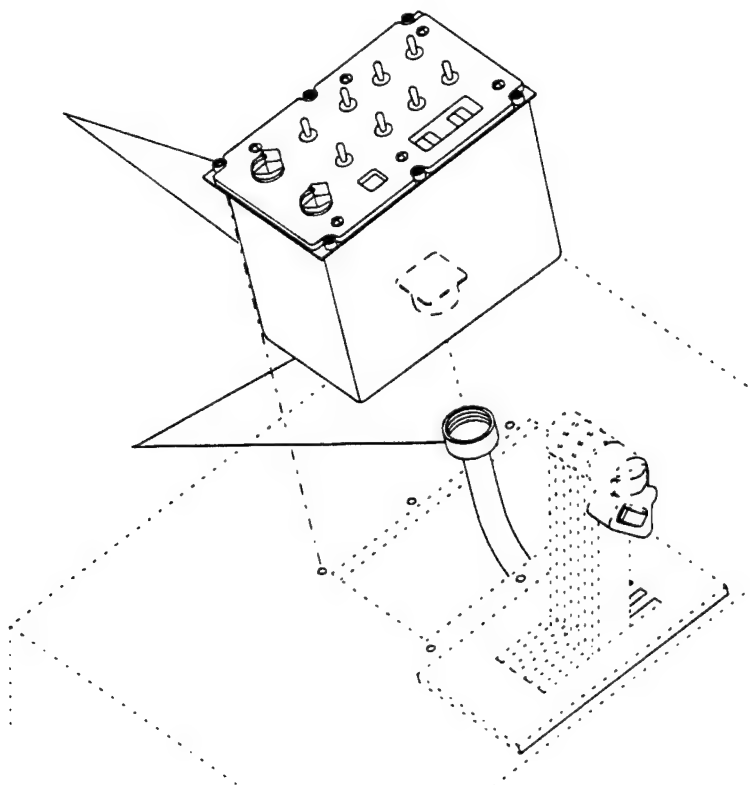
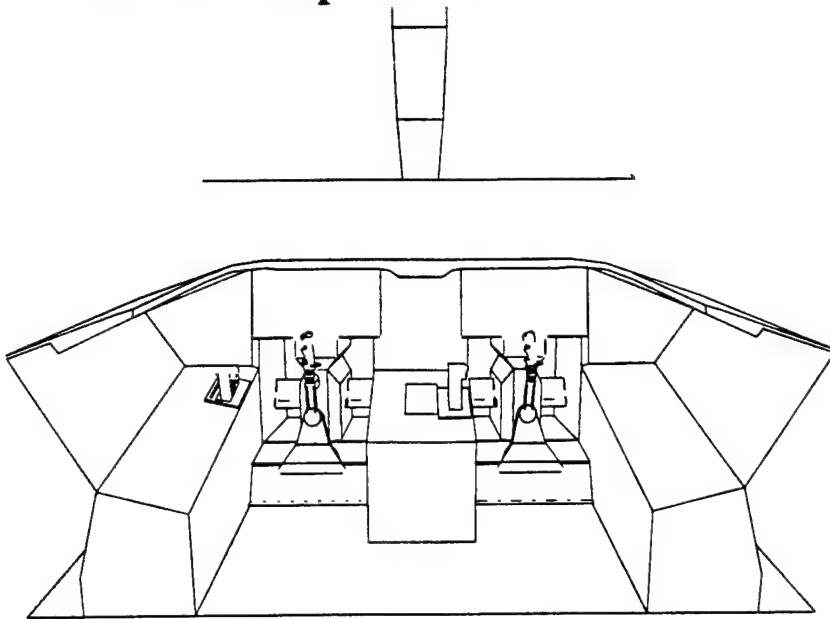
2018: 1 Problems with line weight/width display information.

*** Error Summary ***

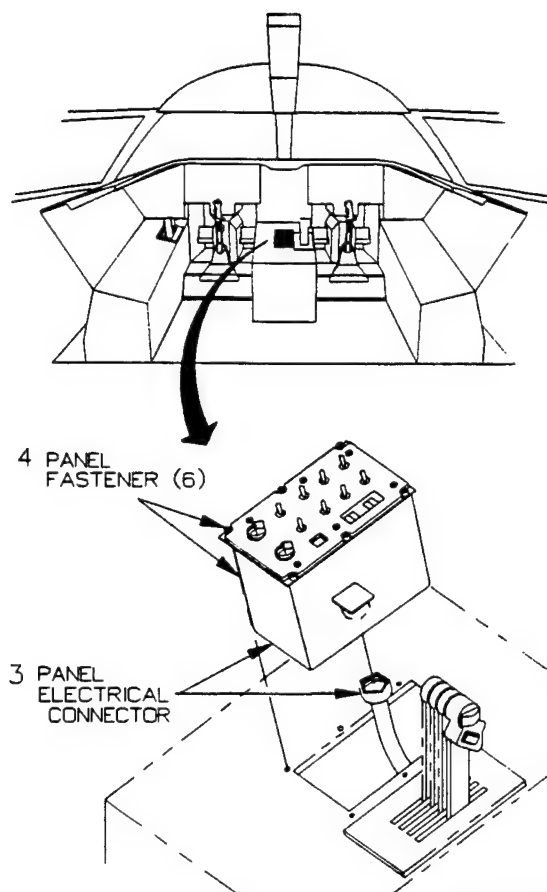
0 fatal errors
0 severe errors
0 errors
39 warnings
1 cautions
0 nitpicks
1 notes

*** End of Analysis of /novell/9327/D001Q007_IGS ***

10.4.2 Output Cadleaf



10.4.3 Output IGESView



11. Appendix C - Detailed SGML Analysis

11.1 Parser Log

11.1.1 DTD Pass One

SGML Document Type Definition Parser
An SGML System Conforming to
International Standard ISO 8879
Standard Generalized Markup Language

Log file: '9327.LOG'
SDO File: 'ctndocl.sdo'
Namecase General is yes.
Namecase Entity is no.
Parsing DTD file: '9327.dtd'

<!DOCTYPE docjg Parsing DOCTYPE DOCJG

<!ENTITY % PUBspc PUBLIC "ISO 8879-1986//ENTITIES Tech Pubs Special Characters//EN"
"\public\pub\$spc.ent">

<!ENTITY % ISOpub PUBLIC "ISO 8879-1986//ENTITIES Publishing//EN"
"\public\iso\$pub.ent">

<!ENTITY % ISOnum PUBLIC "ISO 8879-1986//ENTITIES Numeric and Special Graphic//EN"
"\public\iso\$num.ent">

<!ENTITY % ISotech PUBLIC "ISO 8879-1986//ENTITIES General Technical//EN"
"\public\iso\$tech.ent">

%PUBspc;DTD0157: External entity file '\public\pub\$spc.ent' cannot be opened. Reference ignored.

In declaration: '<!DOCTYPE'.
in line 37 in file '9327.dtd'

DTD0153: Unknown parameter entity: 'PUBspc'. Reference ignored.

In declaration: '<!DOCTYPE'.
in line 37 in file '9327.dtd'

DTD0137: Incorrect token '%.'. Parser Ignoring Input Up To Next MDO.

In declaration: '<!DOCTYPE'.
in line 37 in file '9327.dtd'

DTD0021: Expected last block of type DOCTYPE or LINKTYPE.

In declaration: '<!DOCTYPE'.
in line 37 in file '9327.dtd'

.DTO file not created due to parsing errors.

Program status code: 21.

11.1.2 Text File Log

IPA0108: *** SGML Instance Parser Log File ***
Source Document File: '9327.txt'.
Job File: '9327.jbf'.
DTD File: ''.
SGML Declaration File: ''.
Reading File '9327.jbf', File Type 'JOB FILE'.

Concrete Syntax Settings In Effect For This Parse:

NAMECASE GENERAL: YES. NAMECASE ENTITY: NO.

NAMELEN: 32.

SHORTTAG: YES.

Closed '9327.jbf', File Type 'JOB FILE'.

Reading File '9327.txt', File Type 'DIRECT INPUT FILE'.

--> Scanned Up To Line 100 In 9327.txt.

--> Scanned Up To Line 200 In 9327.txt.

--> Scanned Up To Line 300 In 9327.txt.

--> Scanned Up To Line 400 In 9327.txt.

--> Scanned Up To Line 500 In 9327.txt.

Closed '9327.txt', File Type 'DIRECT INPUT FILE'.

Document Parsed Successfully, No Errors or Warnings.

11.2 Exoterica XGMLNormalizer Parser

11.2.1 DTD Pass One

C:\XGML\XGMLNORM.EXE --

Error on line 34 in file entities/9327.dtd:

Invalid file specification (external identifier).

For the entity 'PUBspc':

The system id is "".

The public id is "ISO 8879-1986//ENTITIES Te ...".

11.2.2 DTD Log, Pass Two

C:\XGML\XGMLNORM.EXE --

Error on line 466 in file entities/9327.dtd:

A content model is ambiguous.

For element 'TOC'. The input is 'CONTENTSENTRY'.

<!-- The document prolog is in error. -->

11.2.3 Text Log Pass One

```
C:\XGML\XGMLNORM.EXE --
Error on line 68 in file i:\9327\d001t001:
Unexpected start tag encountered.
The start tag is for element 'TABLE'.
The current element is 'SSSN'.
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY',
'CONTENTSEENTRY', 'TOC'.
Start tags for the following elements are allowed: 'APPLICABIL',
'CHANGE', 'CONTENTSEENTRY', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI',
'HCP', 'OCP', 'SUBENTRY', 'SUBENTRY1', 'XREF'.
Start tags for the following inclusions are allowed: 'BRK', 'HRULE',
'PGBRK'.
Text is allowed.
The element 'TABLE' will be treated as an inclusion.
```

11.2.4 Text File Pass Two

```
C:\XGML\XGMLNORM.EXE --
Error on line 94 in file i:\9327\d001t001:
Unexpected start tag encountered.
The start tag is for element 'CONTENTSEENTRY'.
The current element is 'TOC'.
End tags for the following elements are allowed: 'TOC'.
Start tags for the following elements are allowed: None.
Start tags for the following inclusions are allowed: 'BRK', 'HRULE',
'PGBRK'.
Text is not allowed.
The element 'CONTENTSEENTRY' will be treated as an inclusion.
```

```
C:\XGML\XGMLNORM.EXE --
Error on line 106 in file i:\9327\d001t001:
Unexpected start tag encountered.
The start tag is for element 'CONTENTSEENTRY'.
The current element is 'SSSN'.
End tags for the following elements are allowed: 'SSSN', 'SUBENTRY',
'CONTENTSEENTRY', 'TOC'.
Start tags for the following elements are allowed: 'APPLICABIL',
'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP',
'SUBENTRY', 'SUBENTRY1', 'XREF'.
Start tags for the following inclusions are allowed: 'BRK', 'HRULE',
'PGBRK'.
Text is allowed.
```

The element 'CONTENTSENTRY' will be treated as an inclusion.

C:\XGML\XGMLNORM.EXE --

Error on line 118 in file i:\9327\d001t001:

Unexpected start tag encountered.

The start tag is for element 'CONTENTSENTRY'.

The current element is 'SSSN'.

End tags for the following elements are allowed: 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'TOC'.

Start tags for the following elements are allowed: 'APPLICABIL', 'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP', 'SUBENTRY', 'SUBENTRY1', 'XREF'.

Start tags for the following inclusions are allowed: 'BRK', 'HRULE', 'PGBRK'.

Text is allowed.

The element 'CONTENTSENTRY' will be treated as an inclusion.

C:\XGML\XGMLNORM.EXE --

Error on line 129 in file i:\9327\d001t001:

Unexpected start tag encountered.

The start tag is for element 'CONTENTSENTRY'.

The current element is 'SSSN'.

End tags for the following elements are allowed: 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'TOC'.

Start tags for the following elements are allowed: 'APPLICABIL', 'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP', 'SUBENTRY', 'SUBENTRY1', 'XREF'.

Start tags for the following inclusions are allowed: 'BRK', 'HRULE', 'PGBRK'.

Text is allowed.

The element 'CONTENTSENTRY' will be treated as an inclusion.

C:\XGML\XGMLNORM.EXE --

Error on line 140 in file i:\9327\d001t001:

Unexpected start tag encountered.

The start tag is for element 'CONTENTSENTRY'.

The current element is 'SSSN'.

End tags for the following elements are allowed: 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'SSSN', 'SUBENTRY', 'CONTENTSENTRY', 'TOC'.

Start tags for the following elements are allowed: 'APPLICABIL', 'CHANGE', 'EMPHASIS', 'EXTREF', 'GRAPHIC', 'HCI', 'HCP', 'OCP', 'SUBENTRY', 'SUBENTRY1', 'XREF'.

Start tags for the following inclusions are allowed: 'BRK', 'HRULE', 'PGBRK'.

Text is allowed.

The element 'CONTENTSENTRY' will be treated as an inclusion.

11.3 Validator Log

11.3.1 First Pass

```
<!-- **Error** in "\sgmlpub\9327.sgm", line 1:
  The minimum literal following the SGML keyword in the SGML Declaration must
  be "ISO 8879:1986".
  The minimum literal is "ISO 8879-1986".
  <!SGML "ISO 8879-1986"
      /\
-->
<!-- Entity has no name, system id or public id in formal file -->.
<!-- **Warning**:
  An element with mixed content should permit data characters ("#PCDATA")
  everywhere.
  The element being declared is "ENTRY".
  (((#PCDATA|xref|change|emphasis|hcp|hci|ocp|
      ^^^^^^
-->
<!-- **Warning**:
  An element with mixed content should permit data characters ("#PCDATA")
  everywhere.
  The element being declared is "NOTICE".
  (((#PCDATA|xref|change|emphasis|hcp|hci|ocp|
      ^^^^^^
-->
<!-- **Warning** in "\sgmlpub\9327.sgm", line 421:
  An element with mixed content should permit data characters ("#PCDATA")
  everywhere.
  The element being declared is "RESULT".
  <!ELEMENT result      - o (%Text;,,faultcode?)>
      /\
-->
<!-- **Error** in "\sgmlpub\9327.sgm", line 540:
  A content model must not be ambiguous.
  For the declared element "TOC", the element "CONTENTSENTRY" is ambiguous in
  the content model.
  <!ELEMENT toc          - - (contentsentry*,contents?,table?,contentsentry*)
      /\
-->
<!-- **Warning** in "\sgmlpub\9327.sgm", line 1153:
  There is no element with an IDREF or IDREFS attribute value equal to a
```

specified ID value.
The unreferenced ID attribute value is "TOC".
-->
<!-- 2 errors and 4 warnings reported. -->

11.3.2 Second Pass

```
<!-- **Error** in "\sgmlpub\9327.sgm", line 1:
  The minimum literal following the SGML keyword in the SGML Declaration must
  be "ISO 8879:1986".
  The minimum literal is "ISO 8879-1986".
  <!SGML "ISO 8879-1986"
      /\
-->
<!-- Entity has no name, system id or public id in formal file -->.
<!-- **Warning**:
  An element with mixed content should permit data characters ("#PCDATA")
  everywhere.
  The element being declared is "ENTRY".
  (((#PCDATA|xref|change|emphasis|hcp|hci|ocp|
      ^^^^^^
-->
<!-- **Warning**:
  An element with mixed content should permit data characters ("#PCDATA")
  everywhere.
  The element being declared is "NOTICE".
  (((#PCDATA|xref|change|emphasis|hcp|hci|ocp|
      ^^^^^^
-->
<!-- **Warning** in "\sgmlpub\9327.sgm", line 421:
  An element with mixed content should permit data characters ("#PCDATA")
  everywhere.
  The element being declared is "RESULT".
  <!ELEMENT result - o (%Text;,faultcode?)>
      /\
-->
<!-- **Warning** in "\sgmlpub\9327.sgm", line 642:
  A start tag is not allowed at the current point, but will be allowed through
  error recovery.
  The element is "TABLE".
  The open elements are "DOCJG", "FRONT", "TOC", "CONTENTSENTRY", "SUBENTRY",
  and "SSSN".
  The following elements can end: "CONTENTSENTRY", "SSSN", "SUBENTRY", or
  "TOC".
  The following elements can start: "APPLICABIL", "BRK", "CHANGE",
```

```
"CONTENTSENTRY", "EMPHASIS", "EXTREF", "GRAPHIC", "HCI", "HCP", "HRULE",
"OCP", "PGBRK", "SUBENTRY", "SUBENTRY1", or "XREF".
Text is allowed.
<table>
/\
-->
<!-- **Error** in "\sgmlpub\9327.sgm", line 642:
A start tag must not be used if the element is neither allowed by the
current content model or by an inclusion.
The element is "TABLE".
<table>
^^^^
-->
<!-- **Warning** in "\sgmlpub\9327.sgm", line 1153:
There is no element with an IDREF or IDREFS attribute value equal to a
specified ID value.
The unreferenced ID attribute value is "TOC".
-->
<!-- 2 errors and 5 warnings reported. -->
```

11.4 Sema Mark-it Log

```
<!--*** file:C:\SGMLPUB\9327.SGM line:540 pos:19760
The CONTENTSENTRY model token has been used ambiguously within the model of TOC.
The parser must be able to choose a model token without look-ahead.-->

<!--*** file:C:\SGMLPUB\9327.SGM line:642 pos:22475
A TABLE start-tag is not allowed in the current context for document DOCJG.
The following tags are valid at this point: #PCDATA <EXTREF> <GRAPHIC> <APPLICABIL> <O
<HCI> <HCP> <EMPHASIS> <CHANGE> <XREF> </SSSN> <SUBENTRY1>
</SUBENTRY> .
The following elements are currently open: SSSN SUBENTRY CONTENTSENTRY TOC FRONT DOCJG
The following entities are open: C:\SGMLPUB\9327.SGM .-->
(21-10-00)
```

11.5 Public Domain sgmls Log

11.5.1 First Pass, DTD

```
sgmls: SGML error at \ws\9327.dtd, line 469 in declaration parameter 4:
Content model is ambiguous
TOTALCAP 51616/200000
```

ENTCAP 7680/200000
ENTCHCAP 3948/200000
ELEMCA 3456/200000
GRPCAP 20320/200000
EXGRPCAP 256/200000
EXNMCAP 544/200000
ATTCAP 10720/200000
ATTCHCAP 296/200000
AVGRPCAP 3840/200000
NOTCAP 192/200000
NOTCHCAP 364/200000

11.5.2 First Pass, DTD/Text

sgmls: SGML error at 9327.sgm, line 1 in declaration parameter 1:
Amendment 1 requires "ISO 8879:1986" instead of "ISO 8879-1986"

sgmls: Warning at 9327.sgm, line 13 in declaration parameter 28:
Unrecognized designating escape sequence "ESC 2/13 4/3"

sgmls: Error at 9327.sgm, line 94 in declaration parameter 5:
Could not find external general entity "B2AJG2111-0101A"

sgmls: Error at 9327.sgm, line 95 in declaration parameter 5:
Could not find external general entity "B2AJG2111-0103D"

sgmls: Error at 9327.sgm, line 96 in declaration parameter 5:
Could not find external general entity "B2AJG2111-0104D"

sgmls: Error at 9327.sgm, line 97 in declaration parameter 5:
Could not find external general entity "B2AJG2112-0101A"

sgmls: Error at 9327.sgm, line 98 in declaration parameter 5:
Could not find external general entity "B2AJG2112-0109C"

sgmls: Error at 9327.sgm, line 99 in declaration parameter 5:
Could not find external general entity "B2AJG2112-0110B"

sgmls: SGML error at 9327.sgm, line 540 in declaration parameter 4:
Content model is ambiguous

sgmls: SGML error at 9327.sgm, line 797 at "":
BOARDNO = "B2AJG2111-0101A" ENTITY attribute not general entity; may affect
processing
Element structure: DOCJG BODY CHAPTER MASTER INCOND ACCESSDATA PARA FIGURE

sgmls: SGML error at 9327.sgm, line 871 at "":
BOARDNO = "B2AJG2111-0103D" ENTITY attribute not general entity; may affect
processing
Element structure: DOCJG BODY CHAPTER MASTER FUNCTION TASK STEP1 PARA FIGURE

sgmls: SGML error at 9327.sgm, line 918 at "":
BOARDNO = "B2AJG2111-0104D" ENTITY attribute not general entity; may affect
processing
Element structure: DOCJG BODY CHAPTER MASTER FUNCTION TASK STEP1 PARA FIGURE

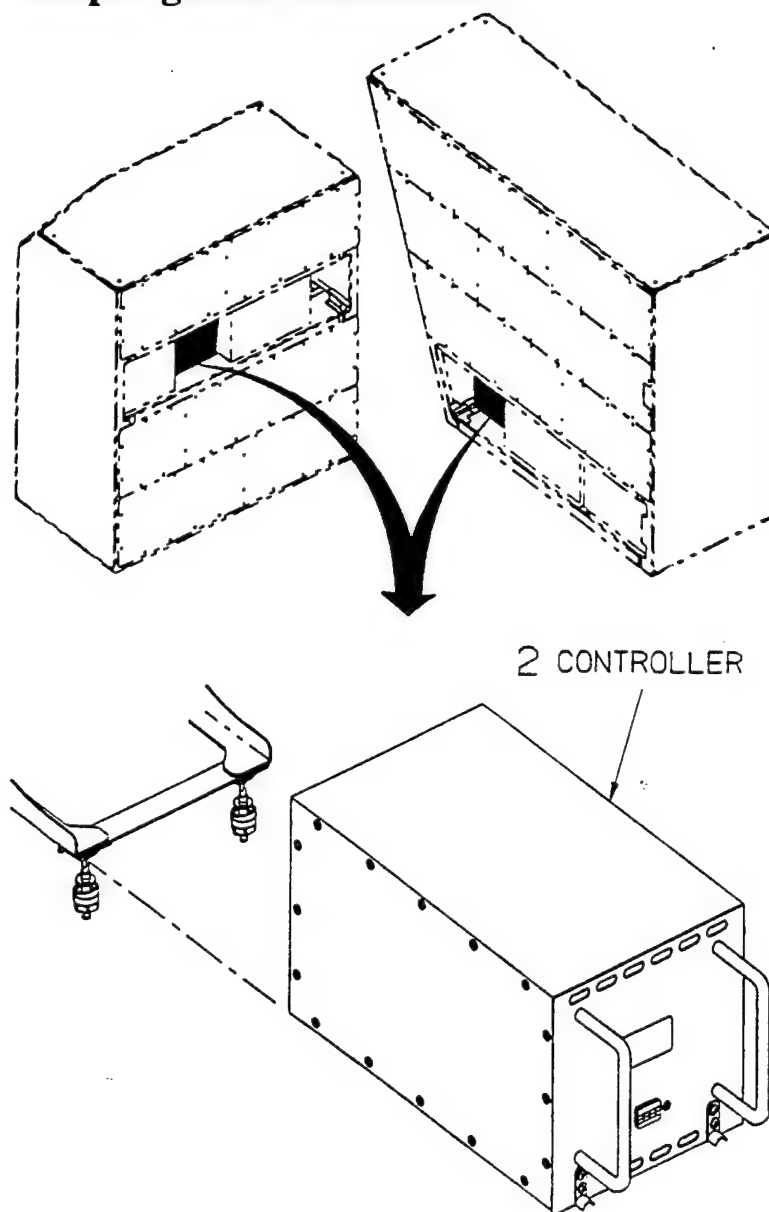
sgmls: SGML error at 9327.sgm, line 1036 at "":

BOARDNO = "B2AJG2112-0101A" ENTITY attribute not general entity; may affect processing
Element structure: DOCJG BODY CHAPTER MASTER INCOND ACCESSDATA PARA FIGURE
sgmls: SGML error at 9327.sgm, line 1102 at "":
BOARDNO = "B2AJG2112-0109C" ENTITY attribute not general entity; may affect processing
Element structure: DOCJG BODY CHAPTER MASTER FUNCTION TASK STEP1 PARA FIGURE
sgmls: SGML error at 9327.sgm, line 1144 at "":
BOARDNO = "B2AJG2112-0110B" ENTITY attribute not general entity; may affect processing
Element structure: DOCJG BODY CHAPTER MASTER FUNCTION TASK STEP1 PARA FIGURE
TOTALCAP 53024/200000
ENTCAP 7680/200000
ENTCHCAP 3948/70000
ELEMCAP 3456/70000
GRPCAP 20320/70000
EXGRPCAP 256/70000
EXNMCAP 544/70000
ATTCAP 10720/200000
ATTCHCAP 296/70000
AVGRPCAP 3840/70000
NOTCAP 192/70000
NOTCHCAP 364/70000
IDCAP 448/70000
IDREFCAP 960/70000

12. Appendix D - Detailed Raster Analysis

12.1 File D001R009

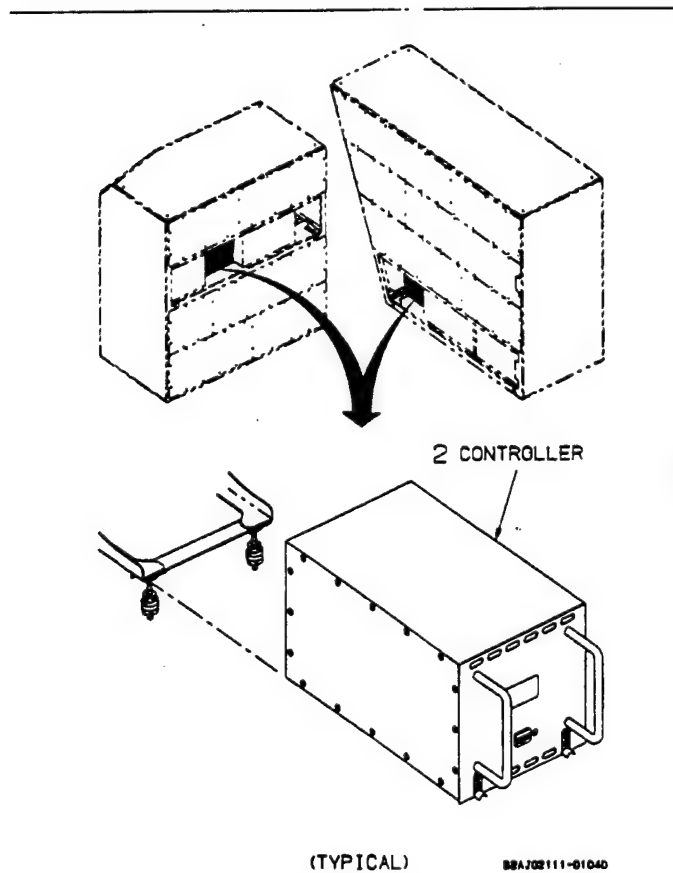
12.1.1 Output g42tiff/IslandPaint



(TYPICAL)

B2AJG2111-0104D

12.1.2 Output IGESView



13. Appendix E - Detailed CGM Analysis

13.1 File D001C008

13.1.1 Parser Log MetaCheck

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/26/93 Time: 12:18:52

Metafile Examined : i:\9327\d001c008.

Pictures Examined : All

Elements Examined : All

Bytes Examined : All

===== Trace Report =====

Tracing not selected.

===== CGM Conformance Violation Report =====

No Errors Detected

===== CALS CGM Profile (MIL-D-28003) Report =====

No profile discrepancies detected.

===== Conformance Summary Report =====

MetaCheck Version 2.05 -- CGM/MIL-D-28003 Conformance Analyzer
Copyright 1988-91 CGM Technology Software
Execution Date: 03/26/93 Time: 12:18:58

Name of CGM under test: i:\9327\d001c008.

Encoding : Binary

Pictures Examined : All

Elements Examined : All

Bytes Examined : All

BEGIN METAFILE string : "0103D.cgm"

METAFILE DESCRIPTION : "NORTHROP B2 ITDS GEF, MIL-D-28003/BASIC-1"

Picture 1 starts at octet offset 154; string contains: "Picture 1"

Private values encountered in CGM

Conformance Summary : This file conforms to the CGM specification.
This file meets the CALS CGM Profile (MIL-D-28003).

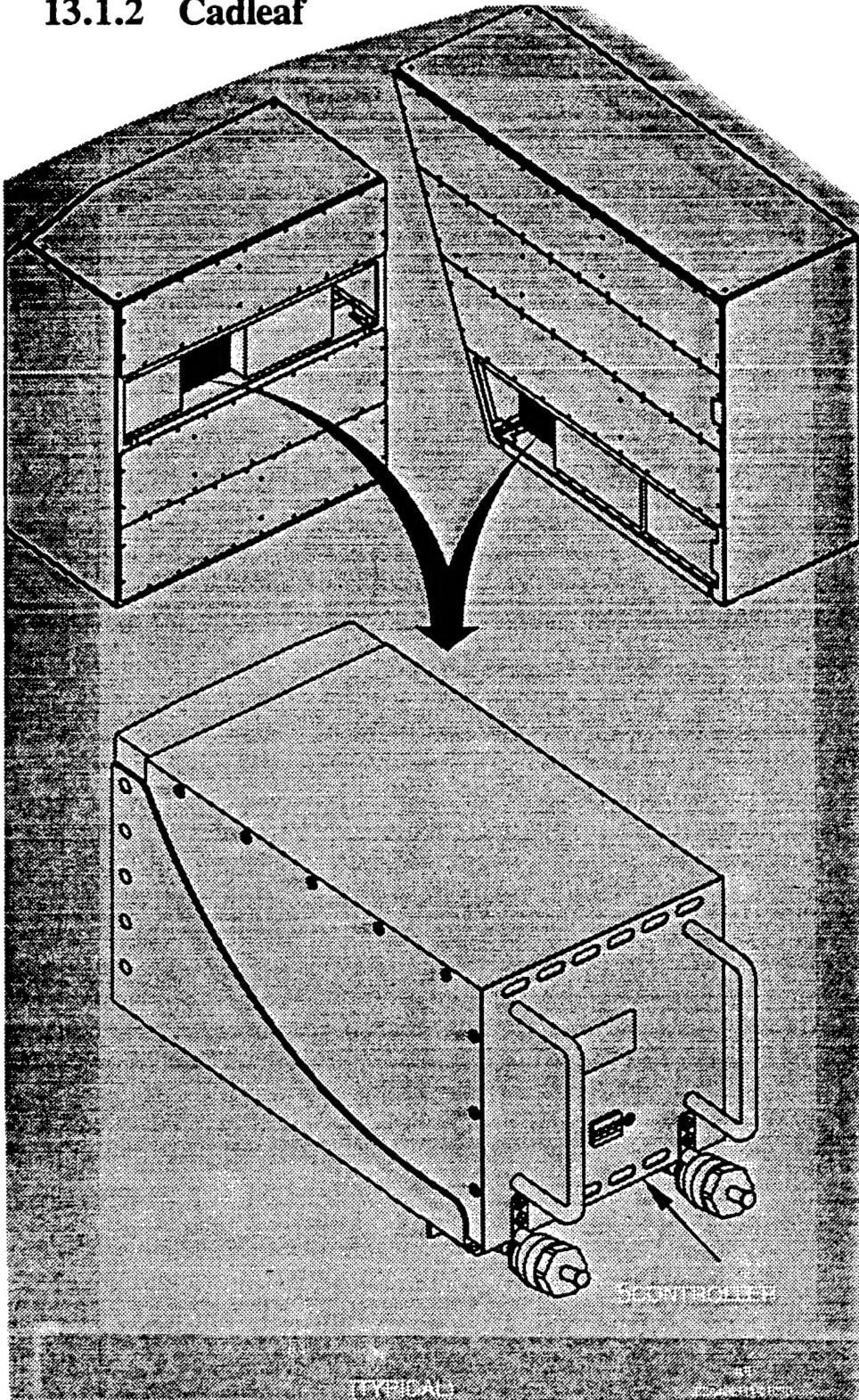
Summary of Testing Performed and Errors Found:

1 Pictures Tested
2192 Elements Tested
48616 Octets Tested

```
=====
|   No Errors Were Detected   |
=====
```

===== End of Conformance Report =====

13.1.2 Cadleaf



13.1.3 Output cgm2draw/IslandDraw

